

Standard Features of the Concept 200

- **Lifetime Warranty**
- **His & Hers Remote Controls**
- **ACG™ 2 (Anti-CodeGrabbing™)**
- **Extended Range Receiver**
- **Audible Low-Battery Warning**
- **Built-In Two-Point AutoImmobiliser™**
- **Optional Wireless Immobiliser™**
- **Patented UltraSecure Coded Valet Mode™**
- **Remotely Adjustable Dual-Zone Piezo Sensor**
- **FACT — False Alarm Control and Test**
- **Enhanced User-Selectable AutoArming**
- **User-Selectable Remote Valet Mode Entry/Exit**
- **Built-In BlackJax Anti-Carjacking System**
- **Optional DataPort™ Interface and CliffNet Wizard™ Software**
- **Remote Panic with Smart Locking/Unlocking**
- **Remote Door Locking/Unlocking**
- **User-Selectable AutoLock**
- **Remote Keyless Entry and Accessory Activation Even in Valet Mode**
- **Integrated Electronic Timer**
- **Turbo Timer Output**
- **DataPort Accessory Interface**
- **Prewired LED, Sensor, Extended Range Receiver and PlainView 2 Switch Connectors**
- **High-Output Medallion Siren**
- **Eight-Event TotalRecall™**
- **Dual-Mode “Chirp” Silencing**
- **Remote Siren Silencing**
- **Smart Remote Boot Release**
- **Built-In Dual Indicator Light Flasher with Onboard Relay**
- **Remote-Controlled Courtesy Lighting**
- **Patented Smart AutoTesting™**
- **Patented Malfunction AutoBypass™ with AutoReMonitoring**
- **Patented Smart Prior Intrusion Attempt Alert**
- **Patented Remote Control Code Learning and MultiRemote Recognition**
- **Clear All Remotes**
- **Multiple-Car Control**
- **High-Luminescence LED Status Indicator with Automatic Battery-Saving Mode**
- **Multiple Sensor/Trigger Inputs**
- **Patented SmartPowerUp™ 2**
- **Advanced CMOS Microcomputer**
- **Three Accessory Channels with Selectable Output Types**
- **Pre-Loomed Wiring**
- **Full-Time SecureAccess™ Programming**
- **AutoActivation of Auxilliary C Output for Window All-Close**
- **Installer-Selectable Door Ajar/Delayed Courtesy Lights**

System Components

The Concept 200 kit contains the following components:

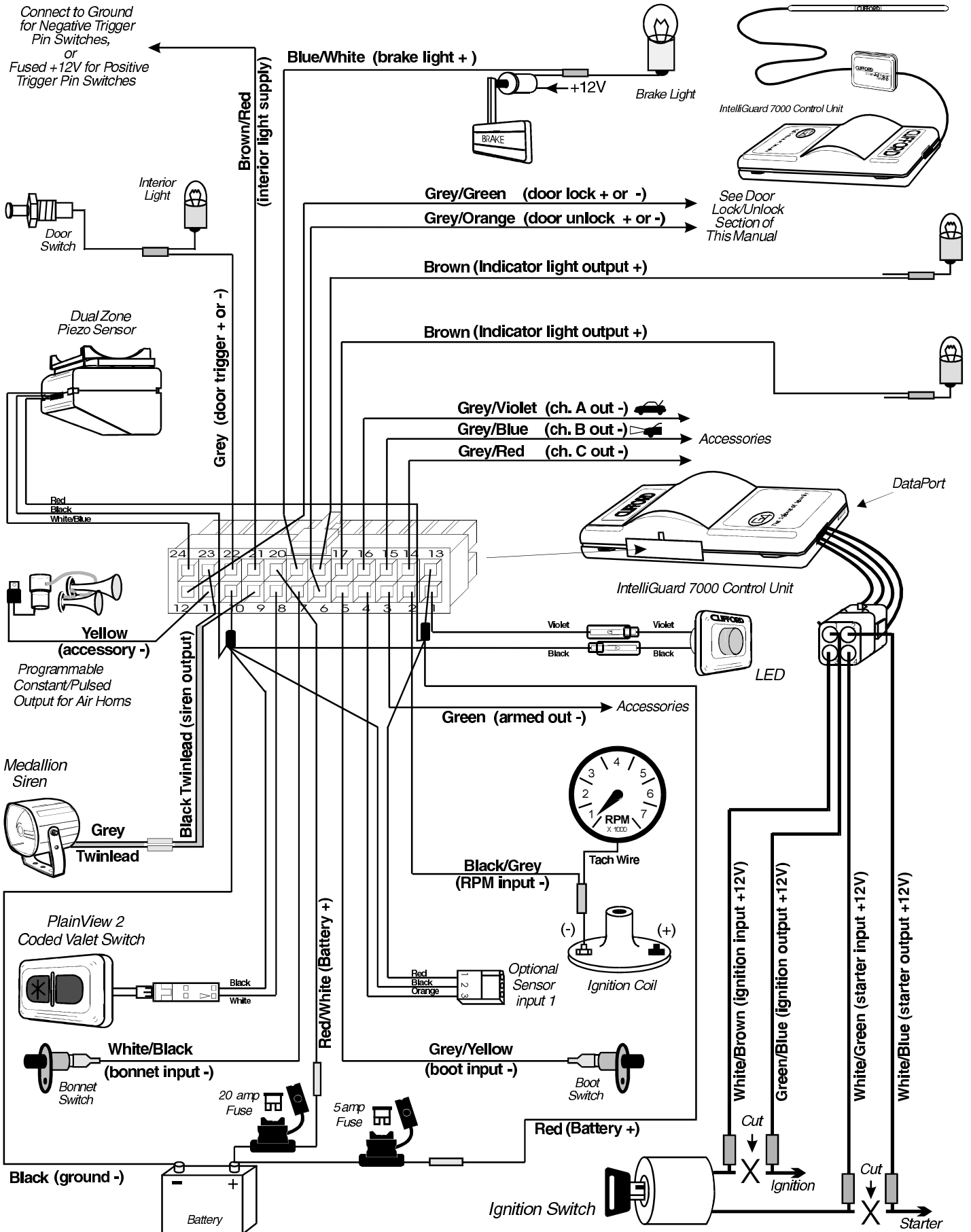
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|--|---------------------------------|
| One Prewired 24-pin Connector Harness | One Extended Range Receiver |
| One Prewired 4-pin Connector Harness | One LED Status Indicator |
| One Concept 200 Control Unit | One Owner's Manual |
| One PlainView 2 Coded Valet Switch | One Hardware Kit |
| Two Remote Transmitters | Two Window Decals |
| One Remotely Adjustable Dual-Zone Piezo Sensor | One High Output Medallion Siren |

Wiring Description for the 24-Pin Connector

Pin	Wire Colour	Connects to
1	Violet	LED output (+)
2	Black/Grey	Ignition coil or tach input
3	Green	Armed output (-)
4	Orange	Sensor input trigger zone (-)
5	Grey/Yellow	Boot trigger input (-)
6	Grey/Orange	Door unlock output (+) or (-)
7	White/Black	Bonnet trigger input (-)
8	White	PlainView 2 valet switch input (-)
9	Black twinlead	High Output Medallion Siren output (-)
10	Black	Ground for Dual-Zone Piezo, optional sensor, LED and valet switch
11	Yellow	Siren output (-)
12	Grey/Green	Door lock output (+) or (-)
13	Red	Power for Dual-Zone Piezo, optional sensor
14	Grey/Violet	Auxilliary A output (-)
15	Grey/Blue	Auxilliary B output (-)
16	Grey/Red	Auxilliary C output (-)
17	Brown	Indicator light output (+)
18	Brown	Indicator light output (+)
19	Blue/White	Brake Light (+)
20	Red/White	Battery (+) with 20-amp fuse
21	Brown/Red	Interior light supply (+) or (-)
22	Grey	Door trigger (+) or (-)
23	Black twinlead	High Output Medallion Siren output (-)
24	White/Blue	Remotely Adjustable Dual-Zone Piezo Sensor input

Wiring Description for the 4-Pin Connector

Pin	Wire Colour	Connects to
1	Green/Blue	Ignition Output (+ 12V)
2	White/Blue	Starter Output (+ 12V)
3	White/Brown	Ignition Input (+ 12V)
4	White/Green	Starter Input (+12V)



Passenger Compartment Connections

Control Unit and Extended Range Receiver

The Concept 200 control unit must be installed inside the vehicle. Under no circumstances should the unit be installed under the bonnet or other similarly hostile environment.

1. Select an area behind the dash to mount the control unit using wire ties, but do not permanently affix it until all wiring and testing is complete.
2. Plug the extended range receiver in to the control unit. Mount the extended range receiver away from the control unit and run the antenna either up the window pillar and affix it to the windscreen, or under the dash, away from metal. The position and location of the receiver will effect remote control range. Do not fold the excess cable or antenna wire. Do not make hard, sharp bends.

Door Trigger/Interior Light Supply

Please refer to the ***Door Trigger & Interior Light Supply*** section in this binder for information on polarity testing and connections.

Central Door Locking System

Please refer to the ***Door Locks*** section in this binder for information on circuit types and connections.

LED Status Indicator

Select a prominent location on the dash or console visible through all windows. Discuss placement with the owner.

1. Verify there is adequate space to accommodate the LED, then drill a 5/16" (8mm) hole and route the wires through it.
2. Mate the LED connectors to the VIOLET and BLACK wire connectors as shown in the diagram on page 7.
3. Press the LED into place.

PlainView 2 Coded Valet/Programming Switch

1. Discuss placement of the switch with the vehicle owner and avoid placing the switch where it can be pressed accidentally.
2. Verify there is adequate space behind the selected location to accommodate the switch.
3. Drill a 5/16" (8mm) mounting hole, then insert the wires through the hole.
4. Mate the switch's locking connectors to the WHITE and BLACK locking connector.
5. Remove the adhesive backing and press the switch into place.

Boot Trigger

Vehicles with a ground-switching boot light will interface directly with the Concept 200 (on positive switching Rolls-Royce vehicles, use a relay to invert polarity). The switch may be located in or near the boot latch or at the boot light. If a switch cannot be located, you must add a pin switch in a location away from water channels.

NOTE: If the vehicle has a dashboard boot ajar indicator, install a 1-amp diode between the light and switch with the diode band pointing toward the switch.

1. Connect the GREY/YELLOW wire to the boot switch (between the diode and switch if you added a diode).

Brake Switch

The brake switch connection is required for the operation of the Concept 200's anti-carjacking electronics.

1. Turn the ignition to the "ON" position and press the brake pedal to verify that the brake lights are operational.
2. Find the one wire that carries + 12V when the brake pedal is pressed, then connect the BLUE/WHITE wire to this wire.

Indicator light

See the ***Door Trigger & Indicator Lights*** section in this binder.

Passenger Compartment Connections (Continued)

Starter and Ignition AutoImmobilisation Circuits

1. Locate the ignition switch wireloom under the dash and use a voltmeter to locate the one wire that carries + 12V throughout **BOTH the cranking AND engine running cycles**, and 0 volts when the ignition is off.
2. Start the engine, then cut the ignition wire. The engine should stop running.
3. as shown on page 3, connect the WHITE/BROWN wire to the **key side** of the cut ignition line.
4. Connect the GREEN/BLUE wire to the **engine side** of the cut ignition line.
5. Use a voltmeter to locate the **one** wire that carries + 12V during the **cranking cycle ONLY**. Cut this wire, then try to start the engine. It should not crank.
6. Connect the WHITE/GREEN wire to the **key side** of the cut starter line.
7. Connect the WHITE/BLUE wire to the **engine side** of the cut starter line.


NOTE: The starter circuit may carry a very high current. Be certain that the starter wire connections are solid.

Remotely Adjustable Dual-Zone Piezo Sensor


Mount the Dual-Zone Piezo Sensor in the passenger compartment, not in the engine compartment.

1. Firmly mount the sensor near the base of the steering column (if the steering column has a rotating sleeve, firmly screw the sensor to the interior firewall, kick panel or boot wall).
2. Mate the sensor to the connector from the control unit with the BLACK, RED, and WHITE/BLUE wires.
3. Adjust the sensor following the instructions provided on page 8.


Auxilliary A with Selectable Output Type

The auxilliary A output (GREY/VIOLET wire) can be programmed as either pulsed, latched or timed and can be programmed to operate only when the system is disarmed (e.g., for use as a remote boot release). Auxilliary A output is activated by pressing the  button or auxilliary A on the remote control. The factory setting is pulsed output (0.5 second ground). The latched output stays at ground until the boot button or auxilliary A is activated a second time, and the timed output stays at ground for any selected duration between one second and four minutes. Current is limited to 0.15 amp. See *Installer-Programmable Features* on page 11 for information on programming the output type and/or disabling operation whilst the system is disarmed.

Auxilliary B with Selectable Output Type

The auxilliary B output (GREY/BLUE wire) can be programmed as either pulsed, latched or timed and is activated by pressing the  button on the companion remote or button 5 on the master remote control. The factory setting is pulsed output (0.5 second ground). The latched output stays at ground until the remote control button is pressed a second time, and the timed output stays at ground for any selected duration between one second and four minutes. Current is limited to 0.15 amp. See *Installer-Programmable Features* on page 11 for information on programming the output type.

Auxilliary C with Selectable Output Type and AutoActivation

The auxilliary C output (GREY/RED wire) can be programmed as either pulsed, latched, or timed and in addition, can also be programmed to automatically activate every time the system is armed using the remote control (e.g., for window all-close). The output is activated by pressing the  and ★ buttons on the companion remote or button 7 on the master remote control. Current is limited to 0.15 amp. AutoActivation is perfect when programmed as a timed-output to close the power windows and sunroof on vehicles that have an all-close feature. See *Installer-Programmable Features* on page 11 for more information on programming output type and/or enabling the AutoActivation feature.

Engine Bay Connections

High Output Medallion Siren

Mount the siren in the engine compartment away from hot or moving parts and where it cannot be reached from under the vehicle, preferable opposite the exhaust system. Point the siren down to avoid water collection (see the illustration).

1. You must firmly secure the siren to the engine bay firewall or an inner wing using all three sheet metal screws supplied.
2. Using the supplied connector, fasten the GREY twinlead wire coming from the siren to the BLACK twinlead from the 24-pin connector on the control unit.

Engine Bay Connections (Continued)

RPM Monitoring

This is required for both RPM-activated automatic door locking and for BlackJax anti-carjacking features. See the **RPM Monitoring** section in this binder for information.

Bonnet Trigger

Vehicles with a ground-switching bonnet pin switch interface directly with Concept 200 (on positive switching Rolls-Royce vehicles, use a relay to invert polarity). If a switch cannot be located, you must add a pin switch in a location away from water channels.

1. Connect the WHITE/BLACK wire to the bonnet pin wire (between the diode and pin switch if a diode was added).

NOTE: If the vehicle has a dashboard bonnet ajar indicator, install a 1-amp diode between the light and switch with the diode band pointing toward the switch.

Final Wiring Connections

1. Connect the RED wire to the 5-amp fuseholder as shown on page 3.
2. Connect the RED/WHITE wire to the 20-amp fuseholder as shown on page 3.
3. Attach the two fuseholders to the battery positive cable clamp.
4. Attach the BLACK wire to the battery negative cable clamp.

NOTE: Power and test accessories after the basic system has been tested. Individually fuse all accessory power connections. Individually fuse all +12V fuse panel connections.

SmartPowerUp™ 2

SmartPowerUp 2 ensures that the system powers up in the same state (disarmed, armed or valet mode) it was in when power was removed. When you first power up the Concept 200, it will silently enter the disarmed state.

Delayed Courtesy Lights

Some vehicles have a courtesy light delay or dimming circuit, which interferes with an alarm being able to detect the door trigger upon remote arming. If the delay or dimming lasts more than 5 seconds, no special connections or testing are needed, simply turn on the *Delayed Courtesy Lights* feature as noted in the *Installer-Programmable Features* section on page 11. Please note that since this feature sets the system to arm the instant the courtesy lights turn off, the Door Ajar Warning feature will not be available.

Remote Control Operation

The Concept 200 comes with two ergonomically designed remote controls. Up to two more ACG 2 remote controls can be added to the Concept 200 system. Due to the ACG 2 feature on the Concept-series systems, older Clifford ACG and non-ACG remotes are not compatible with the Concept 200.

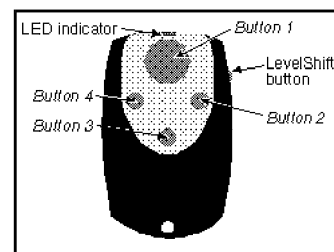
16-Channel Master Remote Control Operation

To transmit either channel 1, 2, 3 or 4: Press button 1, 2, 3 or 4. The LED indicator on the remote control will flash once every second: this indicates **level 1**.

To transmit either channel 5, 6, 7 or 8: Press the LevelShift button once. This shifts buttons 1–4 to level 2 (channels 5–8). Then press the desired button within the next 5 seconds. For instance, to transmit channel 5, press the LevelShift button once, then press button 1. The LED indicator on the remote control flashes twice, pauses, flashes twice, etc.: this indicates **level 2**.

To transmit channel 9, 10, 11 or 12: Press the LevelShift button twice. This shifts the buttons to level 3 (channels 9–12). Then press the corresponding button within the next 5 seconds. For instance, to transmit channel 10, press the LevelShift button twice, then press button 2. The LED on the remote control flashes three times, pauses, flashes three times, etc.: this indicates **level 3**.

To transmit channel 13, 14, 15 or 16: Press the LevelShift button three times. This shifts the buttons to level 4 (channels 13–16). Then press the corresponding button within the next 5 seconds. For instance, to transmit channel 14 press the LevelShift button three times, then press button 2. The LED on the remote control flashes four times, pauses, flashes four times, etc.: this indicates **level 4**.



Remote Control Operation (Continued)

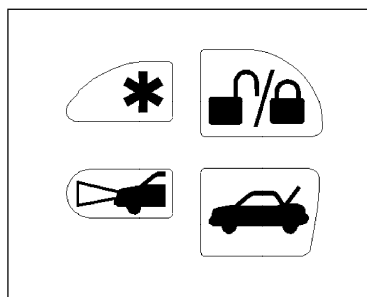
NOTE: One second after you stop transmitting levels 2, 3 or 4 (channels 5–16), the remote control automatically returns to level 1 (channels 1–4).

Remote Control Channel Assignments

Channel #	Function	Channel #	Function
1	Arm/Disarm	9	Remote Valet Mode
2*	Activate Optional Auxilliary A Wired Accessory (usually remote boot release)*	10	Optional Sensor Override
3	Silent Arm/Disarm	11*	Manual Transmission/AutoStart Enable*
4	Unassigned or IntelliStart 4 remote engine starting*	12*	Unassigned*
5*	Activate Optional Auxilliary B Wired Accessory (Usually remote timed headlight activation or turbo timer)*	13*	Unassigned*
6*	SmartWindows 4 Accessory*	14*	Unassigned*
7*	Activate Optional Auxilliary C Accessory (Usually window all-close or IntelliVoice 4)*	15*	Dual Zone Piezo Sensor Adjustment*
8*	Unassigned*	16*	Unassigned*

* These channels can be assigned to control other ACG 2 systems and accessories on multiple vehicles.

Companion Remote Control Operation



Function	Press button(s)
Arm/Disarm	
Activate Wired Auxilliary A Accessory* (usually remote boot release)*	
Silent Arm/Disarm	+
IntelliStart 4 Accessory*	
Activate Auxilliary B Wired Accessory* (such as timed headlight activation)	
SmartWindows 4 Accessory*	+
Activate Wired Auxilliary C Accessory (IntelliVoice 4 Accessory or Window All-Close)*	+
Unassigned*	+
Remote Valet Mode Entry*	+
Optional Sensor Override	+

***These channels can be assigned to control other ACG 2 systems and accessories on the customer's other vehicles.**

Sensor Adjustment



1. **Disarm** the system with the remote control.
2. Transmit channel **15** on the master remote (LevelShift three times, then button 3). You will hear one chirp and the LED will turn on.
3. Test the Piezo Sensor's **primary** zone by thumping the window pillar firmly. You will hear a siren chirp when the primary zone is triggered.

To change the sensitivity of the primary zone, press and release **button 2 to increase** sensitivity or **button 4 to decrease** sensitivity. To rapidly increase or decrease several steps, press and hold the button. For each sensitivity increase, you will hear a higher and higher pitched confirmation chirp. For each sensitivity decrease, you will hear a lower and lower pitched confirmation chirp. Two LoudChirps indicate minimum and maximum settings of the 32-step range of settings. You may now press **button 3** to adjust the warning zone, or press **button 1** to fully exit the Piezo Sensor adjustment mode (you will hear 3 chirps).

To change the sensitivity of the **warning** zone, press **button 3** (you'll hear 1 chirp). Then use the same procedure as above, but this time, thump the window pillar very softly. When done, press **button 1** to reselect the primary zone (you will hear 2 chirps), then button 1 again to fully exit Piezo Sensor adjustment mode (you will hear 3 chirps).

4. Repeat the preceding steps as required. An improperly adjusted sensor will cause the Concept 200 to false alarm or not respond properly to a genuine threat.

Remote controlled override of Optional Sensor

Transmitting channel 10 on the **master** remote control (LevelShift button twice, then button 2), or pressing the  and  buttons on the companion remote, at any time whilst the system is armed will override the optional sensor. This comes in handy when you must temporarily leave a pet or a passenger in the vehicle. The channel 10 optional sensor override is visually confirmed with 4 flashes of the indicator lights. The sensor is automatically restored the next time you arm.

FACT—False Alarm Control and Test

The system microprocessor automatically checks for another activated sensor or trigger before sounding the siren a second time, thus preventing any further false alarms. If you wish to test FACT, simply:

1. Arm the Concept 200 with the remote control.
2. Wait 10 seconds after the interior light turns off, then trigger the Piezo Sensor to activate the siren.
3. Do not disarm the system, let the siren complete its cycle.
4. Attempt to trigger the sensor again. The alarm should be silent.
5. Unlock and open a door. The alarm should sound immediately. You may now disarm.

Eight-Event TotalRecall

The system's nonvolatile memory records the identity of the last eight activated or malfunctioning triggers and sensors:

NOTE: The CliffNet Wizard displays the Eight-Event TotalRecall data in a graphical format.

1. With the ignition OFF, press and hold the unmarked side of the PlainView 2 Switch.
2. Use the remote control arm, and then again to disarm, and then release the button.
3. The LED will flash 1–10 times, pause, then flash 1–10 times, etc. Write down the number of flashes in each cycle.
4. Refer to the following chart. The first number you wrote down was the most recently activated trigger or sensor. The next number is the second most recent, and so on up to as many as the last eight activations.

Eight Event Total Recall (Continued)

Number of LED flashes between pauses	Trigger/sensor indication
2 flashes	Dual-Zone Piezo Sensor
3 flashes	Optional Sensor
4 flashes	Door Trigger
5 flashes	Boot Trigger
6 flashes	Bonnet Trigger
7 flashes	An attempt was made to turn on the ignition or start the engine whilst the system was armed
8 flashes	More than three consecutive incorrect valet codes were entered whilst the system was in BlackJax mode
9 flashes	BlackJax
10 flashes	System Power Interruption

5. If a sensor is often activated, decrease that sensor's sensitivity (or reposition the sensor, if necessary). If a certain trigger is often activated, check pin switch operation, verify that the pin switch is not exposed to moisture and check the trigger wire for possible shorting.

Certificate of Installation

After installation and testing has been completed, you **must** fill in the Clifford Electronics *Certificate of Installation* in the User's Manual.

Programmable Features

Concept 200 comes from the factory with its features preprogrammed as noted in **bold** text in the tables on pages 10 and 11. Some features can be programmed by the installer or the user, others can only be programmed only by the installer.

Using the CliffNet Wizard Pro

The CliffNet Wizard Pro provides an intuitive access to all installer and user-programmable features through a user-friendly, graphical user interface. Because CliffNet Wizard Pro is Windows™-compatible, most operations can be accomplished by simply pointing and clicking a mouse. CliffNet Wizard Pro totally eliminates complicated programming charts and lengthy button pressing sequences. Please refer to the *CliffNet Wizard Pro User's Guide* for more programming information if you are using the CliffNet Wizard Pro. Otherwise, for manual programming refer to the tables provided in the following sections.

Programming the User-Selectable Features

- Write down the column (across) number and row (down) number of the feature(s) you wish to program.
- Turn the ignition to the "ON" position or start the engine.
- Enter the factory preset valet/programming code of "2" by pressing the PlainView 2 Switch's ★ button two times, then press the unmarked button.
- After entering the code, press and hold the ★ for about 3 seconds until you hear one siren chirp and the LED turns on to acknowledge program mode entry. The Concept 200 is now in the "Feature Select" position for User-Programmable Features.
- Select the feature column: Press the unmarked button the same number of times as the column number. Pause. You will then hear the same number of chirps as the column number you have selected, audibly confirming your selection.
- Within five seconds, select the feature row: Press the ★ button the same number of times as the feature's row number. You'll hear a chirp each time you press the unmarked side to help you count.
- If there is a NOTE for the selected feature, perform the actions noted.
- Pause. You will hear either one or two chirps: two chirps = ON, one chirp = OFF.
- You can select another feature, or you can exit program mode:
 - To select another feature in that same column, repeat step 6 within the next five seconds (after five seconds, three chirps indicate that the Concept 200 is now back in the "Feature Select" position).
 - To select a different feature column, repeat step 5.
 - To exit program mode, turn the ignition off (you'll hear three chirps and the LED will turn off to indicate exit of program mode), or wait 60 seconds and the Concept 200 will automatically exit program mode.

User-Programmable Features

User-Programmable Features (1 Chirp = OFF, 2 Chirps = ON)

Feature Select	Unmarked 1	Unmarked 2	Unmarked 3	Unmarked 4
★ 1	AutoProgram New Master Remote NOTE 1	Chirps (Off/LoudChirps/QuietChirps) (1 chirp/2 chirps/3 chirps)	AutoArming (Off/On) (1 chirp/2 chirps)	Arm/Disarm with Secondary Remote NOTE 4
★ 2	NOT USED	Headlight Reminder (Off/On)	AutoArm & Lock (Off/On) (1 chirp/2 chirps)	Auxilliary A Accessory or Boot Release with Secondary Remote NOTE 5
★ 3	NOT USED	Remote Valet Feature (Off/On) (1 chirp/2 chirps)	NOT USED	Silent Arm/Disarm with Secondary Remote NOTE 5
★ 4	NOT USED	AutoStart* (Neither/Battery/Temperature/Both) (1 chirp/2 chirps/3 chirps/4 chirps)	FACT (Off/On) (1 chirp/2 chirps)	Remote Start with Secondary Remote NOTE 5
★ 5	AutoLock (Off/Instant/RPM-Dependent) (1 chirp/2 chirps/3 chirps)	BlackJax (Off/On) (1 chirp/2 chirps)	NOT USED	Auxilliary B Accessory or Timed Headlight Activation with Secondary Remote NOTE 5
★ 6	AutoUnlock (Off/On) (1 chirp/2 chirps)	Clear All Remotes NOTE 3		Window Rolldown/Venting with Secondary Remote (Requires Optional SmartWindows 4) NOTE 5
★ 7	Reset All to Factory Settings (except remote controls and valet code) NOTE 2	Valet Code SHOULD ONLY BE PROGRAMMED BY THE VEHICLE OWNER		Remote Valet Mode with Secondary Remote NOTE 5

*Requires optional IntelliStart 4

- **NOTE 1:** Press button 1 on the 16-channel master remote, you will hear one chirp. Press button 1 *again*, you will hear two chirps.
- **NOTE 2:** You will hear two chirps when all features are reset.
- **NOTE 3:** When you hear two chirps, all remote controls will have been erased from the system memory. You must now add the new and/or existing remote controls to the system (i.e., AutoProgram each remote that will be used with the Concept 200).
- **NOTE 4:** Programs a 4-channel secondary, 16-channel master, or any other remote control from another ACG 2 system to arm or disarm the vehicle. For instance, to set button 13 of the other car's master remote control to arm/disarm the system, select column 4, row 1, then transmit channel 13 from the remote you are programming. The system will respond with one chirp. Immediately transmit channel 13 again. The system will respond with two chirps. Button 13 of the other vehicle's remote will now arm/disarm the system.
- **NOTE 5:** This feature can be programmed onto the remote control of another ACG 2 system, after that remote has been programmed to arm/disarm this system. Select the row and column number, then transmit the unused button on the other remote that you want to use to perform that function. The system will respond with the same number of chirps as the row number. Please note that you must first set a button on the remote that will arm/disarm the system (column 4, row 1) before these others will be accepted.

Installer-Programmable Features

To access the installer-programmable features, use the procedure defined in the User-Programmable section, but in step 4, hold and press the ★ side of the PlainView 2 Switch for 15 seconds. You will hear three confirmation chirps indicating that the system is in installer-program mode.

Table of Installer-Programmable Features (1 chirp = OFF, 2 chirps = ON)

Feature Select	Unmarked 1	Unmarked 2	Unmarked 3
★ 1	Single/Double Lock Pulse (1 chirp/2 chirps)	Accessory Output Timer Duration (10 seconds) See NOTE 1	Door Ajar Warning/Delayed Courtesy Lights (1 chirp/2 chirps)
★ 2	Single/Double Unlock Pulse (1 chirp/2 chirps)	Auxiliary A Type (Pulsed/Timed/Latched) (1 chirp/2 chirps/3 chirps)	Auxiliary A (boot release) Interlock (On/Off)
★ 3	Lock/Unlock Pulse 3 second/1 second (1 chirp/2 chirps)	Auxiliary B Type (Pulsed/Timed/Latched) (1 chirp/2 chirps/3 chirps)	Auxiliary B Interlock (On/Off)
★ 4	Program Door Polarity (Positive/Negative) (1 chirp/2 chirps)	Auxiliary C Type (Pulsed/Timed/Latched) (1 chirp/2 chirps/3 chirps)	Auxiliary C Interlock (On/Off)
★ 5	Program RPM See Mandatory RPM Programming section in this binder	Diesel Engine/Petrol Engine (1 chirp/2 chirps) (For IntelliStart 4 only)	AutoActivate Auxiliary C upon Remote Arming (On/Off)
★ 6	Auxiliary Siren Output (Constant/Pulsed) (1 chirp/2 chirps)	NOT USED	Program SmartWindows 4 (Requires Optional SmartWindows 4)

■ **NOTE 1:** Once this feature is selected, one chirp is provided to indicate that the timer has started. You can set this anywhere from one second to four minutes. When the desired duration has been reached, press the unmarked side of the PlainView 2 switch. The system responds with two chirps to confirm the new system timer duration.

System Checklist & Troubleshooting

The following checklist and troubleshooting tips will assure that you have installed the Concept 200 correctly. If the system does not react as noted, follow the troubleshooting tip(s) denoted with a black box below that item, then repeat the step. Each successive step requires that the previous step has been completed as indicated.

The CliffNet Wizard simplifies the troubleshooting process by providing system diagnostic information in a graphical format. All system settings are provided at-a-glance, and adjustments to the system settings can be made with a click of a mouse. This reduces the amount of time required for performing the following tests.

Step 1.

Re-enable the courtesy lights.

In step 1 of the **Important Information** section in this binder, the interior courtesy lights were disabled. You must now re-enable the courtesy lights by replacing the fuse you removed or reset the courtesy light switch back to its normal “DOOR” position before proceeding.

Step 2.

Test the AutoImmobilisation circuits.

- Turn the ignition to the “ON” position and start the engine. Let the engine run for at least 10 seconds, then turn the ignition “OFF.” After 30 seconds have passed, the dual AutoImmobilisation circuits will engage (indicated by a slow flash of the LED). Turn the ignition to the “ON” position. The engine should not respond (it should neither start nor crank, nor should the fuel pump activate).
- **Engine does not respond.** This is the correct response, proceed to the next AutoImmobilisation test.
- **Engine starts or cranks.** Check the power and ground connections, then check to see if starter/ignition/fuel pump or immobilisation circuits have been miswired. Carefully retest the vehicle wires as noted in the *Starter and Ignition AutoImmobilisation Circuits* section on page 9. Be sure the ignition input/output is correct!

System Checklist & Troubleshooting (Continued)

Step 2 (Continued).

Test the AutoImmobilisation circuits.

- Arm the Concept 200 (either from inside or outside the vehicle) and wait 10 seconds. Turn the ignition to the “ON” position.
 - **Engine does not respond.** This is the correct response, proceed to the AutoImmobilisation test.
 - **Engine starts or cranks.** The starter/ignition/fuel pump or immobilisation circuits have been miswired. Carefully retest the vehicle wires as noted in the *Starter and Ignition AutoImmobilisation Circuits* section on page 9. Be sure the ignition input/output is correct!
 - Engine still starts or cranks after retesting all the wiring as noted on page 9, check the power and ground connections. Then make sure the fuses are in the fuseholders, verify the control unit connectors are securely fastened, verify the ignition input and output wires are connected to the true ignition line instead of a 12V or accessory line, and verify that the transmitters are programmed correctly.

Step 3.

Test the chirps.

Close all doors and arm the Concept 200 by pressing button 1 on the remote control.

- **2 Chirps:** This is the correct response. Proceed to step 4.
- **4 Chirps:** If you hear 4 chirps either immediately or 5-10 seconds after the initial two chirps, a trigger or sensor is open or active, or the vehicle has delayed courtesy lights and the Delayed Courtesy Lights feature has not been programmed on. Disarm with the remote control, enter the vehicle and turn on the ignition. The LED will flash 1–10 times, pause, then repeat the same number of flashes (the flash cycle repeats five times for your convenience). Refer to the following chart.

Number of LED flashes between pauses	Trigger/sensor indication
2 flashes	Dual-Zone Piezo Sensor
3 flashes	Optional Sensor
4 flashes*	Door Trigger*
5 flashes	Boot Trigger
6 flashes	Bonnet Trigger
7 flashes	An attempt was made to turn the ignition “ON” or start the engine whilst the system was armed
8 flashes	More than three consecutive incorrect valet codes were entered whilst the system was in BlackJax mode
9 flashes	BlackJax
10 flashes	Power Interruption

* If the delayed courtesy lights feature is activated, this trigger/sensor indication will not be provided.

- If the *door trigger* is indicated, activate the delayed courtesy lights feature.
- **No chirps.** If there are no chirps, verify that the Chirps feature (column 2, row 1) is “On” and check the wiring connections as noted in the *Medallion Siren* section on page 9.

NOTE: If none of the troubleshooting techniques described in steps 3 - 7 corrects the problem, perform the following diagnostics:

- Make sure the fuses are in the fuseholders.
- Check the power and ground connections.
- Verify that the control unit connectors are properly inserted into the control unit.
- Verify that the ignition input and output wires are connected to the true ignition line instead of a 12V line. Find the true ignition line by following steps 1-4 of the *Starter and Ignition AutoImmobilisation Circuits* section on page 9.
- Verify that the transmitters are programmed correctly.

NOTE: If the 20-amp fuse blows upon arming:

- Disconnect the Concept 200’s two indicator light wires, replace the 20-amp fuse and rearm. If the fuse does not blow, one (or both) of the vehicle’s indicator light wires is shorting. Find and correct the short(s), reconnect the indicator light wires, then rearm.

System Checklist & Troubleshooting (Continued)

Step 3. Continued

- If the fuse blows whilst the indicator light wires are disconnected, the door locks are not wired correctly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the **Door Locks** section of this binder and wire the locks as indicated, then replace the 20-amp fuse.

Step 4.

Test the indicator lights.

Arm the system by pressing button 1 on the remote control.

- **Two flashes.** This is the correct response, proceed to step 5.
- **One flash.** If the indicator lights flash only once, the Concept 200 had previously AutoArmed itself passively and by pressing button 1 the system disarmed (remote disarming is acknowledged with one indicator light flash). Repeat step 1.
- **No flashes.** If no flashes, verify the indicator light bulbs are operational. If not, they must be replaced. If so, repeat steps 1-5 of the **Indicator lights** section in this binder.
- **Only one side flashes.** If only the right or the left side indicator lights flash, see the **Indicator lights** section in this binder.

Step 5.

Test the door locks.

Arm the system by pressing button 1 on the remote control.

- **Doors lock.** This is the correct response, proceed to step 6.
- **Doors do not lock.** You either selected the wrong door lock diagram, programmed the wrong door lock polarity or connected the wires incorrectly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the **Door Locks** section of this binder and wire the locks as indicated.

WARNING: If the doors do not lock, DO NOT activate the vehicle's lock switches. If the locks have been miswired, doing so may damage the Concept 200 control unit, the vehicle's electrical system and/or the power lock servo motors.

- **Doors unlock.** You either selected the wrong door lock diagram or connected the wires incorrectly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the **Door Locks** section of this binder and wire the locks as indicated.
- **Only one door locks.** You either selected the wrong door lock diagram or connected the wires incorrectly. Reconnect the vehicle's power locking system to its original condition, then retest the voltages as indicated in the **Door Locks** section of this binder and wire the locks as indicated.

Step 6.

Test the LED.

Arm the system by pressing button 1 on the remote control.

- **Flashes repeatedly.** This is the correct response, proceed to step 7.
- **No flashes.** If the LED does not flash, verify that the LEDs VIOLET and BLACK wires are solidly connected to the same colour wires on the Concept 200's wireloom. **Warning:** This is a 2-volt LED, testing with 12 volts will destroy the LED.

Step 7.

Test the Valet Switch.

- Test the valet code and switch operation. Use the instructions provided on page 7 to enter programming mode. If the system enters programming mode, the switch and valet code are in operating order. If not, perform the following tests:
- Test the WHITE/BROWN wire, ignition input and verify it has +12V when the ignition is turned ON and +0V when the ignition is OFF. If not refer to *Starter and Ignition AutoImmobilisation Circuits* on page 5.
- Test the WHITE wire at the control unit connector. It should rest at 5 volts. When pressing the marked side, it should read 3 volts and when pressing the unmarked side it should read 0 volts. If any reading is incorrect, move the voltmeter to the BLACK wire at the valet switch. It should read 0 volts at rest, 0 volts when the marked side marked is pressed, and 0 volts when the unmarked side is pressed. If the BLACK wire tests correctly and the WHITE wire does not, replace the switch. If the BLACK wire tests incorrectly, repair the ground circuit. If both wires test correctly, then the valet code has been changed. Use the CliffNet Wizard to reset the valet code.

Step 8.

Test the Dual-Zone Piezo Sensor.

- Arm the system and tap the car softly with your fist. The following should occur:
 - **Warning buzzer sounds.** Proceed to the next test.
- Hit the car firmly with your fist. The following should occur:
 - **Alarm triggers.** Proceed to step 10.

If either of these test fail, adjust the sensor using the remote control.

System Checklist & Troubleshooting (Continued)

Step 9.

Test the disarm function.

- Disarm by pressing remote control button 1. The following should occur:
 - **Siren chirps once.** If the siren does not chirp once, refer to step 3.
 - **Indicator lights flash once.** If the indicator lights do not flash once, refer to step 4.
 - **LED stops flashing.** If not refer to step 6.
 - **Doors unlock.** If not refer to step 5.
 - **AutoImmobiliser circuits immediately disengage** (test this by turning the key in the ignition switch; the engine should crank, start and idle normally). If the AutoImmobiliser circuits do not disengage, refer to step 2.
 - **Interior courtesy light(s) turn on** and stay on for 30 seconds or until the ignition is turned on, whichever occurs first.
 - If the interior light(s) do not turn on, verify that you replaced the interior light fuse you removed or have turned the lights back on as noted in step 1 of this section.
 - Check the Concept 200's 10-amp fuse. If the fuse blew when you disarmed, the vehicle uses a positive door trigger and you connected the interior light supply wire to ground instead of + 12 volts. Replace the 10-amp fuse and retest.
 - Check the door trigger circuit. See step 8 for more information on testing the door trigger circuit.

Step 10.

Test the door trigger circuit.

Rearm the system. Wait at least 10 seconds (if the vehicle has delayed or dimming courtesy lights, be sure to wait until the interior lights have turned off). Use the key to unlock and open the driver's door.

- **Siren sounds, indicator lights flash repeatedly.** This is the correct response, proceed to step 11. (You can silence the siren by pressing the button on the remote control once or disarm by pressing the button twice.)
- **Siren does not sound immediately.** If the alarm does not sound immediately when one of the doors is opened, make sure that that door's pin switch is working properly and, when open, is consistently showing less than 1.5 volts if the vehicle has negative-switching door triggers or more than + 11 volts if the vehicle has positive-switching door triggers, also make sure the pin switch is connected to the correct wire. If not, then the door pin switch (or pin switches) is either defective or in need of cleaning.

Step 11.

Test the boot trigger circuit.

Arm the system, then use the key to unlock the boot.

- **Siren sounds immediately, indicator lights flash repeatedly.** This is the correct response, proceed to step 12. (You can silence the siren by pressing button 1 on the remote control or disarm by pressing button 1 two times.)
- **Alarm does not sound immediately.** If the alarm does not sound immediately, make sure that the boot pin switch is working properly and, when open, is consistently showing less than 1.5 volts. Also make sure the boot pin switch is connected to the correct wire. If not, the boot pin switch must be thoroughly cleaned or replaced.

Step 12.

Test the bonnet trigger circuit.

Arm the system, then open the bonnet. The following should occur:

- **Siren sounds immediately, indicator lights flash repeatedly.** This is the correct response, proceed to step 13. (You can silence the siren by pressing button 1 on the remote control or disarm by pressing button 1 two times.)
- **Alarm does not sound immediately.** If the alarm does not sound immediately, make sure that the bonnet pin switch is working properly and, when open, is consistently showing less than 1.5 volts. If not, the bonnet pin switch must be thoroughly cleaned or replaced.

Step 13.

Test the AutoArming feature.

Turn the ignition "ON," start the vehicle, and let the car idle for 10 seconds. Turn the ignition "OFF," then open and close the door. Wait five seconds.

- **Indicator lights flash twice.** 25 seconds later, the vehicle is passively armed **indicated by a rapidly flashing LED.** This is the correct response, proceed to step 14.
- **System does not passively arm.**
 - Make sure that Instant AutoArming has been programmed using the instructions on page 14.
 - Verify the door trigger connection (see step 9).

Step 14.

Test the Instant AutoArming Bypass.

Disarm the system. Roll the windows down and turn the ignition to the "ON" position, then turn the ignition "OFF."

- **One Chirp.** This is the correct response, open and close the door then wait 30 seconds to insure the system does not passively arm.

System Checklist & Troubleshooting (Continued)

Step 15.

Test remote control range.

Stand approximately 50 feet from the vehicle and use the remote control to arm and disarm the system.

- The Concept 200 will respond with the previously noted indications for arming and disarming. If not:
 - Reposition the external receiver as high as possible high up under the dash, or as high as possible along side the windscreen pillar and as far as possible from heavy wirelooms and metal. Rotate the external receiver 90 degrees and re-test.
 - Make sure that the remote control battery measures at least 11 volts *whilst* transmitting.
 - Make sure that the voltage at the control unit between the 5-amp fused power line and each of the two ground lines measures at least 12.0 volts when triggered (if less, make sure both chassis grounds are solid; if the grounds are solid, the vehicle battery may need charging, servicing or replacement).
 - Make sure that no accessories have been tapped in to the solid RED or solid BLACK power wires.

Step 16.

Complete and provide all necessary paperwork including:

- Certificate of Installation (in the User's Manual).
- User's Manual must be given to the customer.
- Adhere the Clifford window decals to the vehicle's windows.

Step 17.

Demonstrate Basic System Operation

- Remote Operations:
 - Arming/disarming and locking/unlocking
 - Panic Feature
 - Remote Valet Mode Activation
 - Dual-Zone Piezo Sensor Override
 - Accessory operation
- AutoArming and AutoArming Bypass
- AutoImmobilisation
- Valet code entry
- User-programming mode